WHAT IS CLAIMED IS:

1. Magnetic resonance imaging apparatus comprising:

a pair of a first magnet device and a second magnet device for generating a magnetostatic field, said pair of magnet devices being installed in face-to-face relation with each other across an examination space for accommodating an examinee;

a gradient-field generating device;

a high-frequency field generating device; and

a yoke for combining said first and second magnetic devices to guide magnetic fluxes generated by said first and second magnetic devices to thereby form a closed magnetic circuit, wherein said yoke includes a first plate member fixed to a first magnet device, a second plate member fixed to a second magnet device and one or more support-post members interconnecting said first plate member and said second plate member, each of said first and second plate members and support-post members includes a plurality of segments formed in such a shape as to minimize leakage field strength from said first magnet device and said second magnet device.

2. Magnetic resonance imaging apparatus according to claim, wherein each of said first and second plate members and said support-post members includes a plurality of segments of different shapes and said segments are combined in a pattern to match lines of magnetic induction generated by said first and second

magnetic devices.

3. Magnetic resonance imaging apparatus according to Claim 1, wherein said first and second magnet devices are superconducting magnet devices, and said superconducting magnet devices each include a cryostat unit containing a superconducting coil to cool said superconducting coil, said cryostat units are mounted between said plurality of segments.

4. Magnetic resonance imaging apparatus according to Claim 1, wherein said support-post members each include two support posts for connecting said first and second plate members at separate positions, and said two support posts are each formed by a combination of a plurality of segments.

5. Magnetic resonance imaging apparatus according to Claim 2, wherein said first and second plate members are formed by a larger number of segments at positions thereon where said first and second plate members are connected to said support-post members and also in vicinities of said positions than at the other positions.

6. Magnetic resonance imaging apparatus according to Claim 2, wherein said first and second plate members have different numbers of segments at different positions based on a calculated magnetic flux distribution in said yoke.

7. Magnetic resonance imaging apparatus according to Claim 2, wherein said first and second plate

members have segments of shapes to match a calculated magnetic flux distribution.

8. Magnetic resonance imaging apparatus according to Claim 1, wherein said first and second plate members and said support-post members are constructed by stacking in two or more layers segments formed by cutting steel plate.

9. A method of assembling magnetic resonance imaging apparatus as set forth in Claim 1, comprising the steps of:

stacking a plurality of segments of said first plate member by fixing one after another, and then connecting those segments together to thereby assemble said first plate member;

fixing a plurality of segments of said support-post members one after another to said first plate member, and connecting said support-post segments to thereby assemble said support-post members;

providing a magnet device assembly connecting said first magnet device and said second magnet device together by a connection pipe, said first and second magnet devices being arranged in face-to-face relation with each other across said examination space;

fixing said magnet device assembly to said first plate member and also to said support-post members in such a way that said first magnet device is located on said first plate member; and

sequentially fixing and stacking a plurality

of segments of said second plate member one after another on said second magnet device to thereby assemble said second plate member.

10. A method of assembling magnetic resonance imaging apparatus according to Claim 9, wherein said first and second magnet devices include first and second cryostat units, each containing a superconducting coil to cool said superconducting coil, and wherein when fixing said magnetic device assembly to said first plate member and said support-post members, a stiffener is placed between said first and second cryostat units and after said assembling step of said second plate member is finished, said stiffener is removed.

11. A method of assembling said magnetic resonance imaging apparatus according to Claim 9, further comprising the step of, after said assembling step of said second plate member is finished, arranging said gradient-field generating device and said high-frequency field generating device between said first and second magnet devices.

12. A method of assembling said magnetic resonance imaging apparatus according to Claim 9, wherein in the step of fixing said magnetic device assembly to said first plate member and also to said support-post member, said magnetic device assembly having said gradient-field generating device and said high-frequency field generating device arranged between said first and second magnetic devices is provided.

13. Magnetic resonance imaging apparatus according to Claim 1, wherein said shape to minimize said leakage field strength from said first and second magnet devices is a shape to match lines of magnetic induction generated by said first and second magnetic devices.

14. Magnetic resonance imaging apparatus according to Claim 1, wherein said shape to minimize said leakage field strength from said first and second magnet devices is a shape formed by varying a thickness of said segments according to a flux density of said leakage field generated by said first and second magnet devices.

15. Magnetic resonance imaging apparatus according to Claim 4, wherein said cryostat unit has mounted therein a part for achieving a desired field uniformity in said examination space.